





# THE ★ STAR ★ VENTILATOR

Superior to All Others.

Handsome,

Simple,

Durable,

Storm-Proof,

Cheap.

• •  
• •  
• •  
• •  
• •

• • For Ventilation of • •

Churches, School Houses, Public  
Buildings of various kinds,  
Residences, Kitchens,  
Out-houses, Stables,  
etc , etc.

• • ALSO FOR • •

Factories, Cotton and Woolen Mills,  
Carpet and Paper Mills, Machine  
Shops, Foundries, Dye  
Houses, Morocco  
Factories, etc.

CHIMNEY DRAUGHTS INCREASED.

SMOKY AND GASSY CHIMNEYS OR DOWN DRAUGHTS CURED

FOR SEWER AND DRAIN PIPE VENTILATION.

❖ Merchant & Co. ❖

PHILADELPHIA

NEW YORK,

CHICAGO

KANSAS CITY,

LONDON.

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MERCHANT & CO., PHILA.  
1891.

PRESS OF  
DAKIN & PETRY  
PHILA.

THE  
STAR  
VENTILATOR



It is the only ventilator in the world that will give you the best results in the least time. It is the only ventilator that will give you the best results in the least time. It is the only ventilator that will give you the best results in the least time.

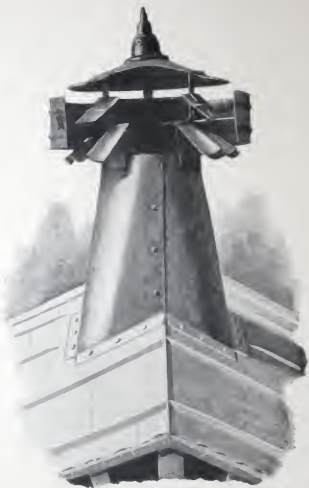
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SECTIONAL VIEW.

## BASES FOR CHIMNEY CAPS.



HERE are two plans of placing or attaching the "Star" Ventilator Caps to a chimney, both of which are thoroughly practical. They are also economical and durable. These attachments, or bases, are made of heavy galvanized sheet iron, and are made to fit closely to the chimney with either an inside or outside flange arrangement. The two attachments are securely riveted. We furnish the Ventilator complete in any size, and to fit any chimney.

It will be observed from the cut, on page 5, that the base or base is made to fit over the entire chimney, making it impossible for any cold, storm or draught to get on the inside of the flue.

The inside flange arrangement is also proof against water, as may be seen by the cut on page 5.

These are also well riveted and made to fit closely to the chimney.

Great care should be used in giving measurements, so as to insure good results.

In applying the "Star" Ventilator to chimneys which are badly constructed—which are old and worn and—the "Star"—even at first, for very low windward—a help, but it will be a very acceptable help.



FAC-SIMILE OF "STAR" VENTILATOR IN POSITION, SHOWING  
THE BASE WITH OUTSIDE FLANGE.



We have submit a table showing the capacity of the different sizes of the "Star" Ventilator.

Capacity of the different sizes of the "Star" Ventilator.

Dimensions	Capacity	Dimensions	Capacity
inches	cubic inches	inches	cubic inches
2 1/2	17	11	111
3	27	12	124
3 1/2	37	14	161
4	47	16	204
4 1/2	57	18	241
5	67	20	281
5 1/2	77	22	324
6	87	24	361
6 1/2	97	26	404
7	107	28	441
7 1/2	117	30	481
8	127	32	524
8 1/2	137	34	561
9	147	36	604
9 1/2	157	38	641
10	167	40	681

The "Star" Ventilator has a large working capacity than any other which is manufactured. The Ventilator Cap, however, must necessarily have to hold a quantity of the air or spring upon which it is placed, in order to obtain satisfactory results. For instance, if a fan measuring 8 or 10 inches, must measure nothing less than a small Ventilator should be used.



FAC-SIMILE OF "STAR" VENTILATOR IN POSITION, SHOWING  
BASE WITH INSIDE FLANGE.

When a chimney has more than one fire, a separate Cap for each would be advisable. While two or more flues may be covered with a large hood, an exhaust pipe should be made for each flue, making them independent of each other, and flues for preventing hot gas or smoke to enter one from the other.

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## STAR VENTILATOR

We have no hesitation in commending to the favorable attention of architects, engineers and builders everywhere. We show in the accompanying plate the construction of the Ventilator, and also its application to the ridge of a roof or to a chimney flue. The draft of the "Star" Ventilator may be arranged to suit circumstances. We also show, by the views of Section, the appearance of the "Star" Ventilator in position, and indicate in some measure the range of uses to which it may be applied.



For the ventilation of mills and all other buildings, we furnish, in addition to the Ventilator Caps, if desired, base attachments, including damper inside the pipe, having brass bearings, working automatically, with cords.

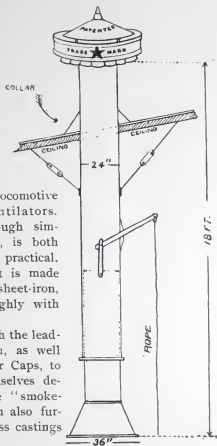
We show in this illustration the application of the "Star" Ventilator Caps on a locomotive round-house. They are made of special material. They are made of very heavy black sheet iron, well put together and



riveted, after which they are thoroughly coated with pure lead, which makes them not only impervious to the weather, but also proof against sulphurous gases, smoke, steam, moisture, etc., from the engines.

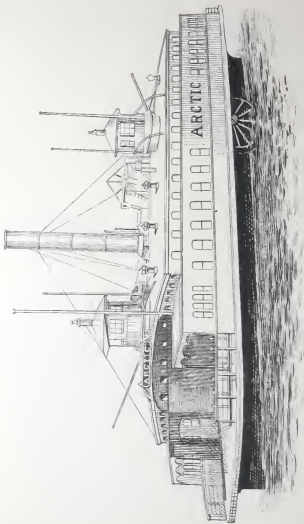
We show here a design of a "smoke-jack," for locomotive round-house, complete, including our "Star" Ventilator Cap, which will be of interest to those contemplating the erection of locomotive round-house Ventilators. The design, though simple in its detail, is both economical and practical. The whole outfit is made of heavy black sheet-iron, coated thoroughly with pure lead.

We can furnish the lead-coated sheet-iron, as well as the Ventilator Caps, to those who themselves desire to make the "smoke-jacks." We can also furnish special brass castings for dampers.









The Pennsylvania Railroad Company have adopted the "Star" Ventilator Cups for their Ferryboats, and we have furnished them with same, complete, with bases and registers, cords, etc. The above cut is taken from a photograph of the Steamer "Arctic," plying between the cities of Philadelphia, Pa., and Camden, N. J.





The above cut represents the LaGrange Mills, LaGrange, Ga., on which 17 of the 24-inch "Star" Ventilators have been in use for several years with the best results.



View of McNeely & Co.'s Morocco Factory, Sixth and Columbia Ave., Philadelphia, showing position of Star Ventilators, 24 inch in diameter.



THE GREAT BRITISH MANUFACTURING COMPANY, LTD.

The following letter will explain what success the "Great" Ventilators are meeting with in this business, which is one of the many cases where our Ventilators have been used.

THE GREAT BRITISH MANUFACTURING COMPANY, LTD.

London, 1st June 1891.

Messrs. Mansfield & Co., Birmingham.

Dear Sirs:—We are very pleased to hear that you are doing so well in the sale of our Ventilators, and we are very glad to hear that you are so well and working so well of your "Great" Ventilators and that you are so successful.

We are very truly,

Yours faithfully,

[Signature]

J. P. Mansfield, President.

[COPY]

OFFICE OF MCKEAN COUNTY FARM.

H. C. Lott, Snpt.

Bloomington, Ills., *January 29th, 1890.*

Messrs. MERCHANT & Co., Philadelphia.

*Dear Sirs:*—I wish to say that the six "Star" Ventilators that we have in use here (4 10-inch and 2 24-inch) are giving us perfect satisfaction. I cheerfully recommend them

Respectfully yours,

[SIGNED]

H. C. LOTT, *Supt.*

[COPY]

Williamsport, Pa., *February 1st, 1889.*

Messrs. MERCHANT & Co., Philadelphia.

*Gentlemen:*—Regarding the success of the "Star" Ventilator Cap, would say we have had several violent wind storms and that, too, from the quarter which always made the chimney on which it is placed a total failure. I now have the pleasure of stating that the Cap has proved a perfect success, preventing all downward draught and perfect freedom from gas and smoke in the room below.

Respectfully yours,

[SIGNED]

G. W. TALLY, *Architect.*

[COPY]

GEORGE WHEELER,

Dealer in Stoves, Heaters, Tin, Hollow-Ware, etc.

*Troy, N. Y., July 27th, 1889.*

Messrs. MERCHANT & Co.

*Gents:*—Every one of the Ventilators which I have used during the past season has given satisfaction, and I can say there is nothing to equal them for weak draft chimneys.

Respectfully,

[SIGNED]

GEORGE WHEELER.

[copy]

Albany, N. Y., *May 16th, 1889.*  
Messrs. MERCHANT & Co., Philadelphia.

*Dear Sirs:*—I send you, with pleasure, a check for the amount of your bill dated May 6th. Your "Star" Ventilators work well. I shall send for more and use them whenever needed.

Yours very truly,

[SIGNED]

A. FLEISCHMAN, *Architect.*

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[copy]

Office of Supt. Jersey City Ferries, Pennsylvania R. R. Co.  
Jersey City, *January 7th, 1890.*  
Messrs. MERCHANT & Co., Philadelphia.

*Gents:*—Your favor of yesterday received, and in answer thereto would say that the 7-inch "Star" Ventilator Cap you sent was put on the top of chimney of my residence at 128 Priuce Street, Bordentown. Previous to putting it on the chimney did not draw well, and when the wind was in a certain direction would blow down the pipe, driving the gas out into the room and at night the air valve in the pipe had to be kept closed to keep the fire over night. But since the Cap was put on, we have all the draught we need, and let the wind blow from any point of the compass, it never blows the gas down, and the air valve has to be left open at night to keep the fire from burning itself out. So you see, from the above facts, that the Cap has done all that you claim for it, and I would recommend its use to any one in need of an auxiliary draft.

Yours truly,

[SIGNED]

ROBT. BLOOMSBURG.

+ + PRICE-LIST + +  
- OF -  
**Star ☆ Ventilators AND Chimney Caps**



**GALVANIZED IRON.**

DIAMETER	PRICE GALV'IZED	DIAMETER	PRICE GALV'IZED	DIAMETER	PRICE GALV'IZED
2 inch,	\$1 00	6 inch,	\$3 40	18 inch,	\$27 00
2½ "	1 00	7 "	4 00	20 "	33 00
3 "	1 50	8 "	4 65	24 "	40 00
3½ "	1 50	9 "	5 20	30 "	65 00
4 "	1 75	10 "	5 75	36 "	120 00
4½ "	2 00	12 "	6 75	40 "	180 00
5 "	2 50	14 "	13 00	48 "	240 00
5½ "	2 85	16 "	20 00	60 "	360 00

**SPECIAL DISCOUNT ON VENTILATOR CAPS UPON APPLICATION.**

Bases will be made to fit any roof or chimney, either square or oblong, of any size required; but the price of the bases are *extra*, according to size and quantity.

We furnish dampers, if wanted, to work automatically, opening and closing at will, by using cord fastenings; and, besides being a means of regulating the atmosphere in the building, the damper serves as a support to the bases.



